Subject Index: Volume 18, 2003

Note: Page numbers followed by (ab) indicate abstracts.

ABG hydroxyapatite-coated hip prosthesis, 619
Acetabular components. *See also specific component*
  cementless
    followup study of, 233 (ab)
    HGI *versus* Charnley, 233 (ab)
    retained during hip revision, 236 (ab)
    spiked *versus* supplemental screws in, 233 (ab)
  constrained
    for recurrent dislocation, 250
  femoral bearings in
    wear performance of, 240 (ab)
  gamma irradiation sterilization of
    and wear performance, 546
  highly crosslinked polyethylene
    surface changes in, 235 (ab)
    wear of, 235 (ab)
  offset
    adverse effects of, 89
  porous-coated
    osseointegration in, 233 (ab)
  removal of
    technique for, 241 (ab)
  revision of
    with frozen massive structural pelvic allograft, 562
  short-term implanted
    surface damage in, 235 (ab)
  wear rate variance in, 154
  without bulk bone graft
    in revision surgery, 134
Acetabular cups
  cemented
    stability of, 1056
  cementless
    polyethylene wear in
      and osteolysis, 236 (ab)
    in revision hip arthroplasty, 129
    structural bone grafts with, 23
  constrained
    biomechanical evaluation of, 466
  extra-large press-fit without screws
    for revision, 271
  hemispheric porous-coated
    cementless, 435
    followup study of, 240 (ab)
  hydroxyapatite-threaded, 140
Acetabular liners
  cementation of
    into well-fixed acetabular shell, 236 (ab)
  ceramic
    fracture of, 658
    mechanical performance under impact conditions, 936
  constrained Osteonics
    followup study of, 236 (ab)
  lateralized modular, 241 (ab)
  polyethylene
    exchange of
      hip dislocation after, 654
    highly crosslinked
      wear performance of, 237 (ab), 238 (ab), 553
Acetabular metastatic disease
  femoral neck ostectomy for, 221
Acetabular reinforcement device
  Kerboull-type, 719
Acetabular revision
  cementation during, 236 (ab)
  cementless, 435
    in rheumatoid arthritis, 16
  component retention during, 236 (ab)
  cortical and cancellous morselized allograft in, 907
  hip-vagina fistula after, 533
  roof reinforcement ring for, 746
  using acetabular roof reinforcement ring with hook, 746
  using Kerboull-type reinforcement device and hydroxyapatite granules, 719
  without bulk bone graft, 134
Acetabular roof reinforcement ring, 746
Acetabular shell
  well-fixed
    cementation of acetabular liner into, 236 (ab)
Acetabular sockets
  cemented Hylamer Ogee
    early head penetration into, 920
  constrained tripolar
    early failure mechanisms of, 827
Acetabulum
  cement extrusion from
    in hip arthroplasty, 338
AGC knee arthroplasty system
  patellar loosening with, 668
  results of, 420
Age factors
  in fixation of periprosthetic femoral fractures, 446
  in hip arthroplasty, 232 (ab)
  in knee arthroplasty, 295
  in shoulder arthroplasty, 792
  in total joint arthroplasty, 817

in unipolar hip hemiarthroplasty, 587
Air
gamma irradiation sterilization in
and wear performance, 546
Alignment *See also* Malalignment
femoral rotational
computed tomographic study of, 478
implant
in knee arthroplasty, 238 (ab)
mechanical
in revision knee arthroplasty, 234 (ab)
rotational
in knee arthroplasty, 643
Alloclassic hip prostheses
long-term results with, 321
Allograft
bone impaction grafting with, 484
cortical and cancellous morselized
in acetabular revision, 907
pelvic
acetabular component revision with, 562
stem composite with
for femoral revision, 1064
Alumina femoral bearings
wear performance of, 240 (ab)
Alumina inserts
zirconia head wear and fracture against, 726
American Association of Hip and Knee Surgeons, 954
Amputation
above-knee
after recurrent knee arthroplasty dislocations, 105
Amputees
below-knee
knee arthroplasty in, 662
Anatomic Graduate Components (AGC) knee arthroplasty system
patellar loosening with, 668
results of, 420
Anatomique Benoist Giraud (AGB) hydroxyapatite-coated hip prosthesis, 619
Anterior cruciate ligament degeneration
in osteoarthritic knee, 687
Antibiotic prophylaxis, 714. *See also specific drug*
Anticoagulation
after knee arthroplasty, 389
effect on knee function after arthroplasty, 180
Arthritis *See also* Osteoarthritis; Rheumatoid arthritis
septic
knee arthroplasty in, 237 (ab)
Arthrography
digital subtraction
in revision hip arthroplasty, 735
Arthropathy
rotator cuff, 75, 169
Artificial ligaments
iliofemoral ligament reconstruction with
for recurrent hip dislocation, 524
Aspirin
effect on knee function after arthroplasty, 180

Bias
non-response
in mail surveys, 240 (ab)
Bilateral knee arthroplasty
impact of Medicare reimbursement on, 29
infection of, 242 (ab)
for multiple periarticular osteosclerosis with joint destruction, 100
safety and efficacy of, 972
Biomechanical evaluation
of ceramic acetabular liners
under impact conditions, 936
of constrained acetabular cups, 466
of femur
with cementless bowed femoral stems, 494
of gait
after unicompartmental knee arthroplasty, 751
of knee strength
after knee arthroplasty, 605
roentgenographic
of distal femur, 478
Birmingham hip resurfacing procedure, 666
Blood loss
postoperative
after femoral intramedullary bone plug sealing, 6
and anticoagulation, 389
reduction of
90/90 pillow for, 765
Blood transfusion
autologous
after knee arthroplasty, 243
Body temperature
after hip arthroplasty, 426
Bone grafting
acetabular roof reinforcement ring with
for acetabular revision, 746
bulk
acetabular components without, 134
impaction (*See* Impaction bone grafting)
morsellized
mixed with tricalciumphosphate/hydroxyapatite particles, 1056
structural
in cementless acetabular cup hip arthroplasty, 23
Bone morphogenic protein-2
in hip arthroplasty
efficacy of, 239 (ab)
Bone morphology
and micromotion of implant, 649
Bone plug
autologous
sealing of intramedullary femoral canal with, 6
Bone scan
radionuclide
in revision hip arthroplasty, 735
Bone stock
deficient
hip arthroplasty with, 35
Bone stock loss classification systems
for revision hip surgery
reliability and validity of, 638
Brake time response
after knee arthroplasty, 840
Bubble sign, 110
Buechel, Freddy, 121 *(letter)*

Cadaver studies
biomechanics of constrained acetabular cups, 466
femoral bone strains and torsional stability, 494
Calcar region
proximal cement filling of
importance of, 234 (ab)
Calf mass
failure of metal-backed patellar components presenting as, 227
Cancer
intestinal
Steptococcus bovis infection associated with, 813
Cefazolin, 714
Cement
in impaction grafting, 484
Vacu-Mix Plus CMW1 gentamicin, 51
Cement extrusion
from acetabulum
in hip arthroplasty, 338
Cement fixation

femoral
enhancement of, 979
Cementing techniques
practicing of
with Play-Doh, 799
second and third generation
outcome of, 999
Cement mantle thickness
in cemented hip arthroplasty, 914
Cement spacers
prepolymerized
augmenting femoral components, 769
Cement-stem interface
in hip arthroplasty with roughened femoral stems, 299
CentiGray radiation
in prevention of heterotopic ossification, 677
Ceramic acetabular liners
mechanical performance under impact conditions, 936
Ceramic sandwich cup
ceramic acetabular liner fracture with, 658
Cerebral embolism
paradoxic
after cemented knee arthroplasty, 113
Charnley cups
first-time revision using, 999, 1005
Charnley Elite hip stem
migration of, 121 *(letter)*
Charnley hip arthroplasty
followup study of, 232 (ab)
versus HGI components, 233 (ab)
osteolysis in
influence of demographic and technical variables on, 631
radiographic study of
in patients less than 50, 232 (ab)
Chinese population
deep venous thrombosis study in, 174
Chrome-cobalt femoral components, 240 (ab), 925
Classification systems
bone stock loss
reliability and validity of, 638
Clinical pathways
for joint arthroplasty
effectiveness of, 69
Coatings
femoral component
for primary hybrid total knee arthroplasty, 1
Cobalt-chrome femoral components, 240 (ab), 925
Commercial sponsorship
for orthopedic research, 239 (ab), 953
Component retention
with acute gram-positive infections, 237 (ab)
Computed tomography
of femoral rotational deformity and alignment, 478
of pelvic osteolytic lesions
accuracy of, 236 (ab)
of periacetabular lysis progression, 236 (ab)
Contracture
postoperative flexion
after unicompartmental knee arthroplasty for osteoarthritis, 612
Coronal landmarks
in knee arthroplasty in varus knees, 56
Corporate sponsorship
and research, 953
Corticosteroid injections
for knee osteoarthritis, 238 (ab)
Cysts
gigantic popliteal synovial, 1071

Debridement
open
for acute gram-positive infections, 237 (ab)
Decision making. *See also* Patient selection
in glenohumeral arthroplasty, 75
Deep venous thrombosis
after total joint arthroplasty
in low-risk population, 174
prophylaxis against
multimodality regimen for, 161
beta-dicalcium pyrophosphate
in total joint arthroplasty, 352
Digital subtraction arthrography
in revision hip arthroplasty, 735
Dislocations
hip (*See* Hip dislocations)
knee
recurrent, 105, 1067
Dogs
hip arthroplasty studies in, 239 (ab)
Driving
after knee arthroplasty, 840

Echocardiography
of embolic events after hip arthroplasty, 186
Embolic events. *See also* Deep venous thrombosis
during hip arthroplasty
echocardiographic study of, 186
Enoxaparin
effect on knee function after arthroplasty, 180
Ethylene oxide
gamma irradiation sterilization in
and wear performance, 546
Exeter hip stem
migration of, 121 *(letter)*

Failure. *See also* Revision surgery; *specific component or cause*
of acetabular components, 466, 654, 827
and backside polyethylene deformation, 784
of fibular grafts, 411, 519
fixation
with offset acetabular components, 89
and leukocyte count before arthroplasty, 1038
of patellar components, 227, 931
of polyethylene inserts
recurrent knee dislocations caused by, 1067
of posterior stabilized knee arthroplasty, 232 (ab)
of proximally cemented, distally uncemented hip arthroplasty, 889
Fat pad
infrapatellar
resection of
in synovectomy, 897
Femoral bearings
wear performance of
alumina *versus* cobalt chrome, 240 (ab)
Femoral canal
metal post migration into, 675
perioperative plugging of, 6, 675
small
hip arthroplasty with, 35
Femoral components. *See also specific component*
cemented
augmentation of, 769
filling of calcar region with, 234 (ab)
fixation of, 979
stem geometry in, 233 (ab)
surface finish of, 233 (ab), 240 (ab)
cementless tapered titanium
in type C bone, 232 (ab)
design of
and anterior knee pain, 396
effect on unresurfaced patella, 233 (ab)
fixation of, 235 (ab), 979
hydroxyapatite-coated, 844
insertion of
time of

in cemented hip arthroplasty, 51
malposition of
influence on patellar position, 458
matte cemented
insert of
surface roughness changes after, 471
modular
cementless hip arthroplasty using, 539 *(letter)*
oversized
knee stiffness caused by, 804
plasma spray-coated titanium, 626
posterior stabilized
surface analysis of, 822
precoated
in primary hybrid total hip arthroplasty, 1
proximally cemented, distally uncemented
early failure of, 889
reimplantation of
after deep infection, 216
revision of
cementless acetabular components retained during, 236 (ab)
titanium
cemented *versus* cementless, 538 *(letter)*
well-fixed
reactive lines in
histology of, 224
Femoral epicondylar axis
during squatting
tibial axis and patellar position relative to, 1048
Femoral fractures
associated with deep prosthetic infection
treatment of, 211
Ender nailing for, 946
insufficiency subchondral, 377
intraoperative
at tip of hip prostheses, 741
knee arthroplasty for, 968
periprosthetic
distal fixation with Wagner revision stem, 446
impaction bone grafting for, 241 (ab)
management of, 903
supracondylar
Ender nailing for, 946
supracondylar periprosthetic
operative stabilization of, 834
Femoral head
insufficiency subchondral fractures of, 377
size of
effect on dislocation after hip arthroplasty, 237 (ab)
Femoral head osteonecrosis, 411
free vascularized fibular graft for
heterotopic ossification after, 83
hemiresurfacing for
stem fracture after, 96
Femoral intramedullary plug
with sliding mechanism, 367
Femoral neck ostectomy, 221
Femoral nerve block
versus femoral and sciatic nerve block, 583
Femoral revision. *See also* Revision surgery
cement augmentation in, 769
stem-allograft composite for, 1064
Femoral stems
cemented Spectron, 925
cementless bowed
effect on femoral bone strains and torsional stability, 494
Mallory-Head tapered, 626
Omnifit, 234 (ab)
Omniflex, 600
roughened
integrity of stem-cement interface in, 299
well-fixed cementless
removal of
using microsagittal saw, 511
Femur
distal
rotational relationship to proximal tibia and patella, 643
rotational deformity and alignment of
roentgenographic view of, 478
strains and torsional stability
effect of cementless bowed stem distal surface on, 494
subluxation of
after posterior cruciate-retaining knee arthroplasty, 570
Fibular grafting
failed
hip arthroplasty after, 411, 519
for femoral head osteonecrosis
heterotopic ossification after, 83
Fistulas
hip-vagina
after acetabular revision, 533
Fluid irrigation
high-pressure
jet characteristics of, 45
Fluordeoxyglucose positron emission tomography
detection of inflammatory reactions to polyethylene wear with, 528
Followup care
after joint arthroplasty
recommendations, 954
after knee arthroplasty
and changes in knee score, 867
patients lost to
outcome in, 149
Followup studies. *See* Outcome; Survivorship analysis
Fractures
ceramic acetabular liners, 658
femoral (*See* Femoral fractures)
humeral
proximal, 75
periarticular
knee arthroplasty for, 968
periprosthetic (*See* Periprosthetic fractures; *specific fracture*)
polyethylene insert
recurrent knee dislocations caused by, 1067
polyethylene tibial components, 672, 942
stem
after hemiresurfacing for femoral head osteonecrosis, 96
tibial, 801, 809, 968
at tip of long-stem hip prostheses, 741
zirconia head
in hip simulators, 726
Functional outcome
after knee arthroplasty, 575
and 90/90 pillow, 765
of AGC knee arthroplasty system, 420
and day of discharge after hip arthroplasty, 453
and heterotopic ossification after knee arthroplasty, 760
of unicompartmental knee arthroplasty for osteoarthritis, 612
Functional status
postoperative
and clinical pathways for joint arthroplasty, 69
preoperative
and patient expectations of hip arthroplasty, 872
Funding
corporate
for orthopedic research, 239 (ab), 953

Gait analysis
after medial unicompartmental knee arthroplasty, 751
Gamma-irradiation sterilization
of polyethylene tibial inserts, 241 (ab)
and wear performance, 238 (ab), 546
Gap filling

with bone morphogenic protein-2
efficacy of, 239 (ab)
Gap measurement
during knee arthroplasty for varus knees, 313
Gas-plasma sterilization
and wear performance, 238 (ab)
Gender factors
in treatment of knee osteoarthritis, 238 (ab)
in unipolar hip hemiarthroplasty, 587
Gentamicin
in cement, 51
Geriatric patients
fixation of periprosthetic femoral fractures in, 446
total joint arthroplasty in, 817
unipolar hip hemiarthroplasty in, 587
Glenohumeral arthroplasty
decision making in, 75
Glenoid components
retrieved, 361
Goodfellow, John, 121 *(letter)*
Gram-positive infections
after knee arthroplasty
treatment of, 237 (ab)
Guide pinholes
knee arthroplasty using
tibial plateau stress fractures after, 809

Health care costs
and clinical pathways for joint arthroplasty, 69
Hemiarthroplasty
bipolar
for chronic rotator cuff tear arthropathy, 169
Hemiresurfacing
for femoral head osteonecrosis
stem fracture after, 96
Herpes simplex virus wound infection
in hip arthroplasty, 516
Heterotopic ossification
after knee arthroplasty, 760
after treatment of femoral head osteonecrosis, 83
prevention of
radiation treatment for, 677
Highly crosslinked polyethylene
clinical performance of, 235 (ab)
optical analysis of, 237 (ab)
surface changes in, 235 (ab)
wear rate of, 237 (ab), 238 (ab), 241 (ab), 553
Hip arthroplasty. *See also* Acetabular components; Hip prostheses; *specific components or techniques*
after failed free vascularized fibular grafting, 411
bilateral
wear rates in, 154
bone morphogenic protein-2 in
efficacy of, 239 (ab)
cemented
cement mantle thickness in, 914
extrusion from acetabulum in, 338
Hylamer Ogee socket, 920
Spectron femoral stem for, 925
timing of femoral component insertion in, 51
cementless
Alloclassic, 321
followup study of, 233 (ab)
Mallory-Head HA-coated, 401
with Omniflex modular femoral stem, 600
plasma spray-coated titanium femoral components for, 626
second-generation, 240 (ab)
stress-shielding after, 238 (ab)
structural bone grafts in, 23
using modular femoral components, 539 *(letter)*
Charnley (*See* Charnley hip arthroplasty)
clinical pathways for
effectiveness of, 69
day of discharge after
and functional outcome, 453
deep venous thrombosis after
in low-risk population, 174
in deficient bone stock and small femoral canals, 35
dislocation after (*See* Hip dislocations)
embolic events during
echocardiographic study of, 186
extended inpatient rehabilitation after
risk of, 775
in the extremely elderly, 817
hemiresurfacing
for failed fibular graft, 519
herpes simplex virus wound infection in, 516
heterotopic ossification after
prevention of, 677
in HIV-positive patients, 259
iliopsoas tendon dysfunction as cause of pain after, 387
inflammatory reactions to polyethylene wear in, 528
long-term follow-up care recommendations, 954
lysis threshold after, 506, 537 *(letter)*
mini-incision technique for, 123
mortality after, 278
partial anterior trochanteric osteotomy in, 333
patient concerns before
evaluation of, 442
patient expectations of
and preoperative functional status, 872
in patients 50 and younger, 232 (ab)
patients' reasons for undergoing
changes in, 63
pelvic osteolytic lesions following, 236 (ab)
posterior approach
early dislocation rate after, 709
posterolateral approach to
complications after, 430
range of motion and muscle strength after, 347
pregnancy after, 879
preoperative risks and outcomes, 693
primary hybrid
femoral components in, 1, 234 (ab), 299
proximally cemented, distally uncemented
early failure of, 889
radiographic signs in, 110
revision (*See* Revision surgery)
sciatic nerve status monitoring during
with motor-evoked potentials, 329
sleep disturbance before and after
assessment of, 371
temperature trends after, 426
transtrochanteric approach to
complications after, 430
unipolar hemi-
in female patients over 70 years old, 587
Hip dislocations
after polyethylene liner exchange, 654
after posterior approach to arthroplasty, 709
and length of stay, 963
recurrent
constrained acetabular components for, 250
iliofemoral ligament reconstruction for, 524
Hip dysplasia
osteoarthritis in, 401
Hip prostheses. *See also* Acetabular components; Femoral components; *specific component*
ABG hydroxyapatite-coated, 619
design and placement of
effect on range of motion, 239 (ab)
dislocation of (*See* Hip dislocations)
highly crosslinked polyethylene
clinical performance of, 235 (ab)
long-stem

fractures at tip of, 741
with loose components
polyethylene wear in, 10
Mallory-Head HA-coated, 401
periprosthetic femoral fractures around
fixation of, 446
porous-coated anatomic
followup study of, 241 (ab)
Hip resurfacing
Birmingham procedure for, 666
Hip simulators
highly crosslinked polyethylene in
third-body wear of, 553
zirconia head wear and fracture in, 726
Hip stems
fully porous-coated
followup study of, 240 (ab)
migration of, 121 *(letter)*
noncemented
in deficient bone stock and small femoral canals, 35
Hip-vagina fistula
after acetabular revision, 533
HIV-positive patients
total joint arthroplasty in, 259
Hospitalization. *See also* Length of stay
and clinical pathways for joint arthroplasty, 69
Humeral components
retrieved, 361
Humeral fractures
proximal, 75
Hydroxyapatite
cups threaded with, 140
hip prostheses coated with, 401, 619, 741
knee prostheses coated with, 844
Hydroxyapatite particles
acetabular reconstruction using, 719
mixed with morsellized bone grafts, 1056
Hylamer Ogee socket
cemented
early head penetration into, 920
Hylan GF-20 injections
for knee osteoarthritis, 238 (ab)
Hypotension
intraoperative, 186
Hypoxemia
intraoperative, 186

Iliofemoral approach
modified
for acetabular revision arthroplasty, 193
Iliofemoral ligament reconstruction
for recurrent hip dislocation, 524
Iliopsoas tendon dysfunction
as cause of pain after hip arthroplasty, 387
Impaction bone grafting
hydroxyapatite/ tricalciumphosphate particles mixed with
morsellized bone for, 1056
for periprosthetic femur fractures, 241 (ab)
in revision hip surgery, 852
wire mesh and cement in, 484
Infections. *See also specific infection*
arthritic knee
knee arthroplasty techniques in, 237 (ab)
deep prosthetic
femoral fractures associated with
treatment of, 211
in HIV-positive patients, 259
pes anserinus bursitis mimicking, 383
simultaneous bilateral knee arthroplasty, 242 (ab)
Inflammatory reactions
to polyethylene wear
PET detection of, 528
Infrapatellar fat pad
resection of
in synovectomy, 897
Inpatient rehabilitation services
predicting need for, 775
Intestinal carcinoma
Steptococcus bovis infection associated with, 813
Intramedullary plug
femoral
with sliding mechanism, 367
Intramedullary stems
press-fit
leg pain associated with, 239 (ab)
uncemented
revision knee arthroplasty with, 234 (ab)

Joint destruction
multiple periarticular osteosclerosis with
bilateral knee arthroplasty for, 100

Kerboull-type acetabular reinforcement device, 719
Kinematic analysis
of posterior cruciate retaining knee arthroplasty, 1029
Kinematic prostheses
long-term results of, 984
Knee
strength of
after knee arthroplasty, 605
varus
gap measurement during, 313
tibial shaft axis as coronal landmark in, 56
Knee arthroplasty. *See also* Femoral components; Knee prostheses; Tibial components; *specific components or techniques*
with anatomically graduated components (AGC), 420, 668
anticoagulation after, 389
autologous blood transfusion after, 243
backside polyethylene deformation in, 784
bilateral (*See* Bilateral knee arthroplasty)
blood loss reduction after
90/90 pillow for, 765
brake time response after, 840
cemented
long-stem revision, 592
paradoxic cerebral embolism after, 113
survivorship analysis of, 265
cementless
meniscal bearing, 41
clinical pathways for
effectiveness of, 69
deep venous thrombosis after
in low-risk population, 174
prophylaxis against, 161
excisional
for patellar loosening, 668
extended inpatient rehabilitation after
risk of, 775
in the extremely elderly, 817
femoral and sciatic nerve blocks after, 583
followup care after
length of
and changes in knee score, 867
recommendations, 954
heterotopic ossification after, 760
in HIV-positive patients, 259
implant alignment in, 238 (ab)
in infected arthritic knee, 237 (ab)
infection of, 237 (ab), 383, 813
infrapatellar fat pad resection in synovectomy during, 897
knee fusion conversion to, 240 (ab)
knee stiffness after
caused by oversized femoral component, 804
knee strength after, 605
medial unicompartmental

gait analysis after, 751
migration of
and bone morphology, 649
mobile bearing, 233 (ab), 396, 1029
mobility after, 575
modular
rotational stress and relative motion in, 241 (ab)
mortality, 278
New Jersey low-contact stress, 121 *(letter)*
in octogenarians, 295
patellar position after
influence of femoral component malposition, 458
patellar resurfacing in
versus not resurfacing, 541
secondary, 993
patient concerns before
evaluation of, 442
patient outcome of
and provider volume, 232 (ab)
patient selection for
and radiologic changes, 199
patients lost to followup from
outcome in, 149
for periarticular fractures, 968
posterior cruciate-retaining, 570, 1029
posterior cruciate-substituting, 942
posterior-stabilized (*See* Posterior-stabilized knee arthroplasty)
preoperative risks and outcomes, 693
range of motion after, 180, 286
revision (*See* Revision surgery)
rotational alignment in, 643
teicoplanin prophylaxis in, 342
tourniquet application in
effect on patellofemoral tracking, 308
unicompartmental
common peroneal nerve palsy after, 92
for osteoarthritis, 612
tibial plateau stress fracture after, 801, 809
unicondylar
template systems for sizing, 780
varus-valgus stability assessment after
fluoroscopically assisted stress radiography for, 513
wear particles after
giant popliteal synovial cyst caused by, 1071
Knee dislocations
recurrent, 105, 1067
Knee fusion
conversion to total knee arthroplasty, 240 (ab)
Kneeling view, 478
Knee pain
anterior
with posterior-stabilized mobile-bearing knee prosthesis, 396
Knee prostheses. *See also* Femoral components; Patellar components; Tibial components; *specific component*
Kinematic
long-term results of, 984
low-contact-stress, 121 *(letter)*, 1016
posterior-stabilized mobile-bearing
anterior knee pain with, 396
Knee Society scores
changes in
with length of followup after arthroplasty, 867

Lavage devices
surgical pulse
jet characteristics of, 45
Leg pain
with press-fit intramedullary stems, 239 (ab)
Length of stay
and clinical pathways for joint arthroplasty, 69
and functional outcome of hip arthroplasty, 453
and hip arthroplasty dislocation rate, 963
Less Invasive Stabilization System (LISS)
for periprosthetic femoral fractures, 834
Leukocyte counts
before revision knee arthroplasty, 1038
Long-term care
after joint arthroplasty
recommendations, 954
Loose components
in prosthetic hips
and polyethylene wear, 10
Low-contact-stress knee prosthesis, 121 *(letter)*, 1016
Lubrication
of synovial joints
with surface-active phospholipid, 499
Lysis threshold, 506, 537 *(letter)*

Mail surveys
followup
non-response bias in, 240 (ab)
Malalignment
of acetabular components
adverse effects of, 89
after knee arthroplasty in varus knees, 56
of femoral components
influence on patellar position, 458
rotational
as mechanism of wear in patellar components, 241 (ab)
Mallory-Head HA-coated hip prosthesis, 401
Mallory-Head tapered femoral stems, 626
Medicare reimbursement policies
impact on simultaneous bilateral arthroplasty, 29
Meniscal bearing knee arthroplasty
uncemented, 41
Metallosis
radiographic sign of, 110
Metals. *See also specific metal*
dissemination of
from failed titanium-base alloy patellar components, 931
Metaphyseal only engaging stems
in revision knee surgery, 234 (ab)
Metastatic disease
acetabular
femoral neck ostectomy for, 221
Methicillin-resistant *Staphylococcus aureus* (MRSA) infection
femoral prosthesis reimplantation after, 216
Micromotion
of implant
and bone morphology, 649
Microsagittal saws
removal of femoral stem with, 511
Microseparation
in hip simulators, 726
Migration
of anatomic knee arthroplasty
and bone morphology, 649
of hip stems, 121 *(letter)*
of metal post into femoral canal, 675
of tibial insert
in unicompartmental knee arthroplasty, 92
Miller-Galante I prosthesis, 227
Mini-incision technique
for total hip arthroplasty, 123
Mobile-bearing knee arthroplasty
survivorship analysis of, 233 (ab), 396, 1029
Mobility
recovery of
after knee arthroplasty, 575
Mortality
after total joint arthroplasty
in medium-volume university practice, 278
perioperative
after shoulder arthroplasty, 886

Motion. *See also* Micromotion
relative
in modular knee replacements, 241 (ab)
Motor-evoked potentials
sciatic nerve status monitoring with
during hip arthroplasty, 329
Motus meniscal bearing prosthesis, 41
MRSA infection
femoral prosthesis reimplantation after, 216
Muscle strength
after hip arthroplasty
effect of posterolateral reconstruction on, 347

Nerve blocks
femoral *versus* sciatic
after knee arthroplasty, 583
New Jersey low-contact stress total knee arthroplasty, 121 *(letter)*
New York State
Medicare reimbursement in
for simultaneous bilateral arthroplasty, 29
90/90 pillow
blood loss reduction with
after knee arthroplasty, 765

Octogenarians
knee arthroplasty in, 295
Ogee socket
cemented Hylamer
early head penetration into, 920
Omnifit femoral stem
survivorship study of, 234 (ab)
Omniflex modular femoral stem
second- and third-generation, 600
Opiate consumption
and femoral *versus* sciatic nerve blocks, 583
Optical analysis
of polyethylene tibial inserts, 237 (ab)
Optic neuropathy
anterior ischemic
after hip resurfacing procedure, 666
Orthopedic research
corporate funding for, 239 (ab), 953
Osseointegration
in porous-coated acetabular components
radiographic study of, 233 (ab)
Ostectomy
femoral neck, 221
Osteoarthritis
and anterior cruciate ligament degeneration, 687
corticosteroid *versus* Synvisc injections for, 238 (ab)
of glenohumeral joint, 75
in hip dysplasia, 401
hip resurfacing procedure for, 666
knee arthroplasty for, 1016
gait analysis after, 751
patient selection for, 199
postoperative flexion contracture after, 612
Osteolysis
in Charnley hip arthroplasty, 631
computed tomography of
accuracy of, 236 (ab)
periprosthetic
threshold for, 506, 537 *(letter)*
polyethylene wear and
followup study of, 236 (ab)
in posterior stabilized knee arthroplasty, 239 (ab)
progression of
computed tomographic study of, 236 (ab)
rapid
after revision arthroplasty
in Paget's disease, 204
Osteomyelitis
knee arthroplasty in, 237 (ab)
Osteonecrosis
failed free vascularized fibular grafting
hip arthroplasty after, 411
femoral head
hemiresurfacing for
stem fracture after, 96
of glenohumeral joint, 75
Osteonics acetabular liner
constrained, 236 (ab)
Osteosclerosis
multiple periarticular
with joint destruction, 100
Osteotomy
partial anterior trochanteric
in hip arthroplasty, 333
Outcome. *See also* Functional outcome; Survivorship analysis; *specific component or procedure*
of joint arthroplasty
in HIV-positive patients, 259
and preoperative risks, 693
of knee arthroplasty
in octogenarians, 295
primary hybrid, 1
and provider volume, 232 (ab)
in rheumatoid arthritis, 984
simultaneous bilateral, 972
mail survey
non-response bias in, 240 (ab)
of patient satisfaction with hip arthroplasty, 63
in patients lost to follow-up, 149
of pregnancy after hip arthroplasty, 879
of shoulder arthroplasty in young patients, 792
Outcome measure
range of motion as
after knee arthroplasty, 286
Oxford knee, 121 *(letter)*
template system for, 780

Paget's disease
hip arthroplasty in
rapid osteolysis after, 204
Pain
after hip arthroplasty
iliopsoas tendon dysfunction as cause of, 387
knee
with posterior-stabilized mobile-bearing knee prosthesis, 396
leg
with with press-fit intramedullary stems, 239 (ab)
Pain management. *See specific technique or analgesic*
Particle generation
lower limit of, 506
Patella
porous metal
for patella bone loss during revision arthroplasty, 238 (ab)
rotational relationship to proximal tibia and distal femur, 643
unresurfaced
effect of femoral component design on, 233 (ab)
versus resurfacing, 541
Patella infera syndrome, 897
Patellar clunk syndrome
after posterior-stabilized knee arthroplasty, 1023
mimicking polyethylene tibial post fractures, 942
Patellar components
failed titanium-base alloy
dissemination of metals from, 931
metal-backed
failure of
presenting as giant calf mass, 227
rotational malalignment as mechanism of wear in, 241 (ab)
Patellar loosening

excisional knee arthroplasty for, 668
Patellar position
influence of femoral component malposition on, 458
relative to femoral epicondylar axis during squatting, 1048
Patellar resurfacing
versus not resurfaced, 541
secondary
in knee arthroplasty, 993
Patellofemoral tracking
in knee arthroplasty
effect of surgical approaches and tourniquet application in, 308
Patient concerns
before joint arthroplasty
evaluation of, 442
Patient discharge. *See also* Length of stay
after hip arthroplasty
day of
and functional outcome, 453
Patient expectations
of hip arthroplasty
and preoperative functional status, 872
Patient factors
in component wear rate variance, 154
Patient satisfaction
with hip arthroplasty, 63
and range of motion after knee arthroplasty, 286
Patient selection
for knee arthroplasty
and radiologic changes, 199
for meniscal bearing uncemented knee arthroplasty, 41
Pelvic allograft
frozen massive structural
acetabular component revision with, 562
Periacetabular lysis. *See* Osteolysis
Periprosthetic fractures
associated with deep prosthetic infection
treatment of, 211
femoral
distal fixation with Wagner revision stem, 446
in Paget's disease, 204
revision knee replacement for, 242 (ab)
Peroneal nerve palsy
after lateral unicompartmental knee arthroplasty, 92
Pes anserinus bursitis
polyethylene-induced, 383
Pillow
90/90
blood loss reduction with, 765
Pinholes
guide
knee arthroplasty using
tibial plateau stress fractures after, 809
Plasma spray-coated titanium femoral components, 626
Play-Doh
practicing cementing technique with, 799
Polyethylene. *See also* Highly crosslinked polyethylene
backside deformation of, 784
pes anserinus bursitis induced by, 383
Polyethylene liner exchange
hip dislocation after, 654
Polyethylene tibial inserts
fractures of, 942, 1067
gamma-sterilization of, 241 (ab)
optical analysis of, 237 (ab)
thickness measurements of, 240 (ab), 860
Polyethylene wear
inflammatory reactions to, 528
and osteolysis, 236 (ab)
in prosthetic hips with loose components, 10
Popliteal synovial cysts, 1071
Positron emission tomography
detection of inflammatory reactions to polyethylene wear with, 528
Posterior condylar (PC) line
roentgenographic assessment of, 478
Posterior cruciate ligament
tight
in posterior cruciate-retaining knee arthroplasty, 570
Posterior-stabilized knee arthroplasty
versus cruciate-retaining, 538 *(letter)*
failure of, 232 (ab)
femoral components in
surface analysis of, 822
osteolysis in, 239 (ab)
patellar clunk syndrome after, 1023
Postoperative complications. *See also specific complication*
after hip arthroplasty
with transtrochanteric *versus* posterolateral approaches, 430
and clinical pathways for joint arthroplasty, 69
Practice guidelines
for long-term follow-up care after joint arthroplasty, 954
Pregnancy
after hip arthroplasty, 879
Preoperative functional status
and patient expectations of hip arthroplasty, 872
Preoperative patient concerns
evaluation of, 442
Preoperative risks
and outcome of joint arthroplasty, 693
Prosthetic infections
deep
femoral fractures associated with treatment of, 211
femoral prosthesis reimplantation after, 216
in HIV-positive patients, 259
Prosthetic joints. *See also* Hip prostheses; Knee prostheses; *specific prosthesis*
lubrication with surface-active phospholipid, 499
Provider volume
and mortality after total joint arthroplasty, 278
and outcome of knee arthroplasty, 232 (ab)
Pulse lavage devices
jet characteristics of, 45

Quality of life
and range of motion after knee arthroplasty, 286

Rabbits
impaction grafting study in, 484
Radiation treatment
in prevention of heterotopic ossification, 677
Radiographic signs
in hip arthroplasty, 110
in osteoarthritis
and patient selection for knee arthroplasty, 199
Radiographic studies
of acetabular cement extrusion, 338
of acetabular component revision with pelvic allografts, 562
of acetabular roof reinforcement ring revision, 746
of cemented Charnley arthroplasty, 232 (ab)
of cement mantle thickness in cemented hip arthroplasty, 914
of femoral rotational deformity and alignment, 478
of first-time revision using Charnley cups, 1005
of heterotopic ossification after knee arthroplasty, 760
of knee implant alignment, 238 (ab)
of Mallory-Head HA-coated hip prosthesis, 401
of osseointegration in porous-coated acetabular components, 233 (ab)
of patellar clunk syndrome, 1023
of polyethylene tibial inserts, 240 (ab)
of porous-coated anatomic hip prosthesis, 241 (ab)
of revision hip arthroplasty, 735

of tibial polyethylene thickness, 860
of titanium femoral components, 538 *(letter)*
Radiography. *See also* Computed tomography
stress
fluoroscopically assisted
for varus-valgus stability assessment, 513
Radiolucent lines
in first-time revision using Charnley cups, 1005
Radionuclide bone scan
in revision hip arthroplasty, 735
Range of motion
after hip arthroplasty
effect of posterolateral reconstruction on, 347
after knee arthroplasty, 286
effect of anticoagulation on, 180
and heterotopic ossification, 760
and 90/90 pillow, 765
effect of hip prosthesis design and placement on, 239 (ab)
Reactive lines
in well-fixed components
histology of, 224
Rehabilitation
extended inpatient
risk of, 775
functional milestones in
and day of discharge after hip arthroplasty, 453
Reoperation rate
after revision knee arthroplasty, 235 (ab)
Revision surgery
acetabular (*See* Acetabular revision)
bone stock loss classification systems for
reliability and validity of, 638
with cemented components and uncemented intramedullary stems, 234 (ab)
cemented long-stem knee arthroplasty, 592
cementless jumbo cups in, 129
cementless stems in
mechanical alignment of, 234 (ab)
digital subtraction arthrography and radionuclide bone scan in, 735
femoral component cement augmentation in, 769
first-time
using Charnley cups, 999, 1005
and fractures at tip of long-stem hip prostheses, 741
in HIV-positive patients, 259
impaction bone grafting in, 852
metaphyseal only engaging stems in, 234 (ab)
modified iliofemoral approach for, 193
modular cementless *versus* cemented femoral component fixation in, 235 (ab)
patella bone loss during
porous metal patella for, 238 (ab)
for periprosthetic fractures after knee replacement, 242 (ab)
with press-fit intramedullary stems
leg pain associated with, 239 (ab)
rapid osteolysis after
in Paget's disease, 204
reoperation rate, 235 (ab)
white blood cell counts before, 1038
Rheumatoid arthritis
cementless acetabular replacement in, 16
of glenohumeral joint, 75
knee arthroplasty in, 984, 1016
synovectomy for
infrapatellar fat pad resection in, 897
Roentgenography
of bone morphology and implant micromotion, 649
kneeling view technique, 478
Rotaglide knee prosthesis
and anterior knee pain, 396
Rotating-platform knee prostheses, 1016
Rotational alignment
in knee arthroplasty, 643
Rotational deformity
of distal femur
roentgenographic view of, 478
Rotational malalignment
as mechanism of wear in patellar components, 241 (ab)
Rotational stress
in modular knee replacements, 241 (ab)
Rotator cuff arthropathy, 75, 169

Salvage blood
predonated *versus* postoperative, 243
Sandwich cup
ceramic acetabular liner fracture with, 658
Saws
microsagittal
removal of femoral stem with, 511
Sciatic nerve block
versus femoral nerve block, 583
Sciatic nerve status monitoring
with motor-evoked potentials
during hip arthroplasty, 329
Screws
spiked *versus* supplemental
in cementless acetabular components, 233 (ab)
SDCP
in total joint arthroplasty, 352
Shoulder arthroplasty
90-day mortality after, 886
retrieved glenoid components from, 361
in young patients, 792
Sizing
and postoperative knee stiffness, 804
template systems for
in unicondylar knee arthroplasty, 780
Sleep apnea
undiagnosed
in patients selected for arthroplasty, 1044
Sleep disturbance
before and after hip arthroplasty
assessment of, 371
Soft tissue balancing
during knee arthroplasty
step-by-step measurements of, 313
Soft-tissue repair
posterior
hip arthroplasty with
early dislocation rate after, 709
Squatting
femoral epicondylar axis during, 1048
Steel wire mesh
in impaction grafting, 484
Stem-allograft composite
for femoral revision, 1064
Stem fracture
after hemiresurfacing for femoral head osteonecrosis, 96
Steptococcus bovis infection
associated with intestinal carcinoma, 813
Stereophotogrammetric study
of bone morphology and implant micromotion, 649
Sterilization
effect on polyethylene acetabular liner wear performance, 238 (ab)
gamma irradiation
and wear performance, 238 (ab), 546
of polyethylene tibial inserts, 241 (ab)
Stress
rotational
in modular knee replacements, 241 (ab)
Stress radiography
fluoroscopically assisted
for varus-valgus stability assessment, 513
Stress-shielding
after cementless hip arthroplasty

clinical consequences of, 238 (ab)
Stroke
after knee arthroplasty, 113
Surface-active phospholipid
lubrication of synovial joints with, 499
Surface finish
of cemented femoral components, 233 (ab), 240 (ab), 471
of highly crosslinked polyethylene, 235 (ab)
in hip arthroplasty, 234 (ab)
of posterior-stabilized femoral components, 822
of short-term implanted acetabular components, 235 (ab)
Survivorship analysis
of AGC knee arthroplasty system, 420
of hydroxyapatite-coated threaded cups, 140
of mobile bearing knee arthroplasty, 233 (ab)
of Omnifit femoral stem, 234 (ab)
of primary cemented knee arthroplasty designs, 265
of titanium femoral components, 538 *(letter)*
of unipolar hip hemiarthroplasty in female patients over 70 years old, 587
Synovectomy
infrapatellar fat pad resection in, 897
Synovial cysts
popliteal, 1071
Synovial joints
lubrication with surface-active phospholipid, 499
Synvisc injections
for knee osteoarthritis, 238 (ab)

Teicoplanin
prophylaxis with, 342
Temperature
after hip arthroplasty, 426
Template systems
for sizing unicondylar knee arthroplasty
reliability of, 780
Thigh pain
with with press-fit intramedullary stems, 239 (ab)
Thrombosis
deep venous
after total joint arthroplasty
in low-risk population, 174
prophylaxis against
multimodality regimen for, 161
Tibia
alignment of
in cementless revision knee arthroplasty, 234 (ab)
proximal
rotational relationship to distal femur and patella, 643
Tibial axis
as coronal landmark in knee arthroplasty, 56
relative to femoral epicondylar axis during squatting, 1048
Tibial components
retrieved unicondylar
wear of, 237 (ab)
well-fixed
reactive line histology in, 224
Tibial fractures
after unicompartmental knee arthroplasty, 801, 809
knee arthroplasty for, 968
mimicking patellar clunk syndrome, 942
polyethylene spine, 672
Tibial inserts
deformation of, 784
gamma-sterilization of, 241 (ab)
migration of
in unicompartmental knee arthroplasty, 92
optical analysis of, 237 (ab)
thickness measurements of, 240 (ab), 860
Titanium-base alloy patellar components
failed
dissemination of metals from, 931
Titanium femoral components
cementless tapered
in type C bone, 232 (ab)
plasma spray-coated, 626
Torsion
caused by offset acetabular components, 89
Torsional stability
with cementless bowed femoral stems, 494
Tourniquet application
effect on patellofemoral tracking, 308
Trabecular bone
proximal cement filling of, 234 (ab)
Transepicondylar axis (TEA)
roentgenographic assessment of, 478
Tricalciumphosphate/hydroxyapatite particles
mixed with morsellized bone grafts, 1056
Trochanteric osteotomy
partial anterior, 333

Ultrasonography
venous duplex
of venous thrombosis, 161
University practice
medium-volume
mortality after total joint arthroplasty in, 278

Vacu-Mix Plus CMW1 gentamicin cement, 51
Vagina-hip fistula
after acetabular revision, 533
Vancouver type B2 periprosthetic femoral fractures
fixation of, 446
Varus knees
gap measurement in, 313
tibial shaft axis as coronal landmark in, 56
Varus-valgus stability assessment
fluoroscopically assisted stress radiography for, 513
Venous duplex ultrasonography
of venous thrombosis, 161
Veterans Health Administration, 693

Wagner revision stem
distal fixation with
in periprosthetic femoral fractures, 446
Warfarin, 389
Wear. *See also* Polyethylene wear
of acetabular components sterilized with gamma irradiation, 546
in bilateral hip arthroplasty, 154
of femoral bearings
alumina *versus* cobalt chrome, 240 (ab)
of patellar components
rotational malalignment as mechanism of, 241 (ab)
patterns of
in retrieved glenoid components, 361
of retrieved unicondylar tibial components, 237 (ab)
of zirconia heads against alumina inserts, 726
Wear particles
giant popliteal synovial cyst caused by, 1071
White blood cell counts
before revision knee arthroplasty, 1038
Wire mesh
stainless steel
in impaction grafting, 484
Wound infection. *See also* Infections; *specific infection*
antibiotic prophylaxis against, 714
herpes simplex virus, 516

Zirconia heads
wear and fracture against alumina inserts, 726

Author Index: Volume 18, 2003

Acevedo, Marcelo, 420
Agarwal, M., 92
Akisue, Toshihiro, 784
Alemparte, José, 420
Alexander, Pradeep, 516
Ali, Ahmad M., 780
Althausen, Peter L., 834
Ambrose, Catherine G., 466
Amstutz, Harlan C., 519
Anderson, Dylan T., 1029
Ando, Kenichi, 946
Andrew, G., 442
Anract, P., 333
Aoki, Yoshimitsu, 134
Arbuthnot, James E., 666
Armstrong, April D., 458
Arons, Raymond R., 430
Asayama, Isao, 347
Auersperg, Vinzenz, 321
Azocar, Oscar, 420

Ballmer, F. T., 361
Barrack, Robert L., 494
Bauer, Thomas W., 784
Bayers-Thering, Mary, 979
Beaulé, Paul E., 519
Benjamin, James, 867
Berend, Keith R., 411
Berend, Michael E., 668
Beynnon, Bruce D., 643, 1048
Bhan, S., 1016
Binns, M.S., 51
Blom, Ashley, 638
Bluhm, Andrea, 471
Böhler, Nikolaus, 321
Bolander, Mark E., 259
Bolder, S. B. T., 1056
Bong, Matthew R., 925
Botero, Herman G., 925
Bothra, Venay, 780
Boucher, Henry R., 654
Bourne, Robert B., 129, 494, 541
Bowling, Jack W., 709
Braden, Michael, 769
Bragdon, Charles R., 553
Brien, Heather J. C., 458
Brumby, Scott A., 809
Buma, P., 1056
Burroughs, Paul L., 792
Buttaro, M., 377

Cabezas, Alfonso, 420
Callander, Peter W., 110
Cameron, H. U., 35
Capello, William N., 140, 299, 879
Carlsson, Åke, 649
Carrington, Richard, 809
Carson, P. E., 1044
Chan, W. F., 174
Chang, Fang-Yeng, 227
Chen, Frank, 23
Chen, Li-Ting, 352
Chen, Tain-Hsiung, 227
Chen, Wei-Ming, 227
Chess, David G., 458
Childs, A., 1044
Ching, P. T. Y., 714
Chiu, K. Y., 714, 799, 1067
Chiu, Kwong-Yuen, 435, 1023
Choi, Byung-Wan, 626
Chou, H., 35
Chung, Jae Yoon, 746
Churchill, David L., 1048
Cioppa-Mosca, J., 453
Clark, David I., 666
Clarke, H.J., 852
Clyburn, Terry A., 466
Cofield, Robert H., 886
Coleman, Nigel, 662
Collier, Matthew B., 860
Collins, Dennis, 765
Conterato, Dean, 677
Cook, Paul, 583
Cooke, P. J., 426
Coughlin, Kathryn M., 643, 1048, 1064
Crawford, John R., 662
Crawford, R. W., 499
Cremerius, U., 528
Cross, M. J., 41
Cummings, Marilyn, 677
Curley, Luke J., 936
Cushner, Fred D., 687

Dailiana, Zoe H., 83
Daley, Jennifer, 693
D'Antonio, James A., 140
de Beer, J. de V., 193
de Beer, Justin, 741
de Lalla, Fausto, 342
Della Valle, A. González, 377
Della Valle, Craig J., 29
de Loubresse, Christian Garreau, 562
Descalzi, Javier, 813
Desoutter, G., 45
Detterline, A. J., 879
Devane, P. A., 371
DeWal, Hargovind, 23
Diaz-Borjon, Efrain, 570
Di Cesare, Paul E., 23, 925
DiGioia, Anthony M. III, 123
Diwan, A.,, 426
Dixon, J. H., 338
Dorey, Frederick, 634
Downes, E. M., 619
Dunning, Cynthia E., 458

Earles, Donald R., 840
Edidin, Avram A., 140
Edwards, S. A., 852
Eftekhar, Nas S., 631
Emerson, Roger H., 161
Engh, C. Anderson, Jr., 654, 860
Engh, Charles, Sr., 654
Engh, Charles A., 154, 546
Epinette, Jean-Alain, 140
Erhart, J., 968

Fallani, Stefania, 342
Fehring, Thomas K., 1038
Feinberg, Judy R., 299, 879
Feller, Julian A., 751
Fielden, Jann M., 371
Finerman, Gerald A. M., 63
Finkemeier, Christopher G., 834
Finn, Hnery A., 533
Fisher, John, 726
Forster, M. C., 265
Fragkiadakis, Emmanuel G., 993
Freeman, M. A. R., 224, 844
Frost, Helen, 575
Fujikawa, Kyosuke, 760
Fujisawa, Motoyuki, 347
Fujishiro, Takaaki, 524
Fujita, Hiroshi, 367
Futani, Hiroyuki, 216

Gabriel, Jean-Louis, 96
Galante, Jorge O., 677
Gander, P. H., 371
Gandhi, Rajiv, 741
Ganz, R., 333
Ganz, S. B., 453
Garti, Avraham, 672
Gaudron, Colleen, 583
Gautier, E., 587
Gearen, Peter F., 792
Gidwani, S., 199
Gilchrist, Michael, 936
Gill, Gurdev S., 149, 295

Giori, Nicholas, J., 89
Girtler, R., 271
Gosens, T., 401
Gozzard, Charles, 638
Green, R. M., 371
Grießler, Walter, 321
Griffin, William L., 1038
Grover, M.L., 852
Gunneson, Eunice E., 83, 411

Haas, Brian D., 1029
Hagio, Keisuke, 186
Haidukewych, George J., 211
Hang, Yi-Shiong, 352
Hanssen, Arlen D., 592
Hansson, Ulrik, 649
Harder, Valerie S., 889
Hardinge, Kevin, 10
Harris, William H., 506, 553
Harrison, M. M., 1044
Harty, Leesa D., 668
Hasegawa, Masahiro, 658
Hasegawa, Yukiharu, 920
Hayakawa, Kazue, 946
Hendel, David, 672
Henderson, William G., 693
Herberts, Peter, 999, 1005
Hernández, Rodrigo, 420
Hertel, Ralph, 361
Hiebert, Rudi N., 29, 925
Higgins, Linda L., 161
Hills, B. A., 499
Hirasawa, Yasusuke, 478, 931
Hirata, Hitoshi, 658
Hirose, Kazuya, 897
Hiroshima, Yoshiki, 367
Hisatome, Takashi, 600
Hiyoshi, Nobuyuki, 914
Holder, G., 45
Holley, Keith G., 677
Hopkinson, William, 693
Hopper, Robert H., Jr., 154, 546
Horne, J. G., 371
Höstner, Joakim, 1005
Huang, Ching-Kuei, 227
Huang, Shun-Chen, 383
Huang, Ting-Wen, 383
Huber, M., 271
Hultmark, Peter, 999, 1005
Hynes, Denise, 693

Idjadi, Jeremy, 29
Iida, Hirokazu, 367
Ikeda, Hiroo, 313
Ikenaga, Minoru, 719
Ikuta, Yoshikazu, 600
Ilchmann, Thomas, 10
Incavo, Stephen J., 643, 1048, 1064
Ingham, Eileen, 726
Inokuchi, Wataru, 1071
Insall, John N., 687
Insley, Gerard, 726
Ip, F. K., 446
Ishibashi, Yasuyuki, 308
Ishiko, Toshiyuki, 347
Isima, Takumi, 897
Issack, Paul S., 925
Isshiki, Tetsushi, 478
Ito, Hiroshi, 134
Ito, Jun, 984
Ito, Nobuo, 100
Ivory, J. P., 972
Iwamoto, Yukihide, 56
Iwase, Toshiki, 920

Jackson, Walter O., 605
Jacob, Hilaire A. C., 513
Jaffe, William L., 29
Jakob, R. P., 587
Jaramaz, Branislav, 123
Jasty, Murali, 553
Jeanrot, C., 333
Jennison, C., 972
Jensen, Ib, 735
Jessup, Douglas E., 570
Jewett, Brian A., 860
Jiang, Ching-Chuan, 105
Johnell, Olof, 649
Johnson, James A., 458
Johnson, Randy, 867
Joshi, Arul B., 295
Joshi, Atul B., 149
Joshi, Ravindra, P., 631
Journeaux, Simon F., 666
Judet, Thierry, 562
Jung, Sung Taek, 746

Kambe, Taichi, 347
Kamdar, B. A., 92
Kantor, Stephen R., 813
Karachalios, Theofilos, 484
Kärholm, Johan, 999
Karnezis, Ioannis A., 993
Kärrholm, 1005
Kaspar, S., 193
Katsimihas, M., 16
Katz, Jeffrey N., 69, 286
Kawate, Kenji, 914
Keays, A. C., 180
Keays, S. L., 180
Kelly, James D. II, 75
Kessler, Oliver, 513
Kesteris, Uldis, 10
Khaldi, Lubna, 484
Khan, A., 442
Khan, Fahim, 221
Khoo, J., 174
Khuri, Shukri, 693
Kiebzak, Gary M., 963
Kim, Hee Joong, 511
Kim, Stephen, 69
Kim, Sung-Jin, 626
Kim, Young-Min, 511
Kinemax Outcomes Group, 286
King, Graham J. W., 458
Kinouchi, Junnosuke, 760
Kisielinski, K., 528
Kitaori, Toshiyuki, 367
Kligman, Mordechai, 907
Ko, P. S., 6, 174, 446
Koka, Ravi, 675
Komatsu, Takashi, 308
Komistek, Richard A., 1029
Koshino, T., 612
Krackow, Kenneth A., 979
Kramer, J., 541
Kudrna, James C., 889
Kulkarni, R., 619
Kuney, Mary, 389
Kurosaka, Masahiro, 524, 784

LaButti, Ronald S., 979
Lachiewicz, Paul F., 1, 278
Lam, J. J., 6, 174, 446
Lamb, Sarah E., 575
Landzberg, Michael J., 113
Lang, Derek, 780
La Rosa, David F., 687
Lazzarini, Luca, 342
Learmonth, Ian D., 16, 638
LeDuff, Michel, 519
Lee, Keun Bae, 746
Lee, M. B., 16
Lee, Mark A., 834
Lee, O. B., 35, 446
Lee, Yung-Keun, 903
Lemaire, R., 396
Lemon, Gerard, 780
Leonard, L., 972
Levison, Timothy J., 123
Lewer, B. M. F., 371
Li, G. S., 426
Lidgren, Lars, 649
Lieberman, Jay R., 63
Lim, Soo Taek, 511
Lin, Feng-Huei, 352
Lindequist, Sten, 735
Lingard, Elizabeth A., 286
Lipman, Joseph D., 936
Liu, Hwa-Chang, 352
Lo, Chun-Sheng, 804
Lo, Ngai-Nung, 801
Lo, Wai-Hee, 227
Lonergan, Robert P., 963
Long, G., 426
Losina, Elena, 69
Lotz, Jeffrey C., 494
Luu, Hue H., 533
Lynch, Chris, 654
Lyritis, George P., 484

Macaulay, William, 430
Macdessi, S., 426
MacInnes, T., 224
Maher, Suzanne A., 936
Malhotra, R., 1016
Mancuso, Carol A., 867
Manley, Michael T., 140
Markel, David C., 250
Markovic, Lubisa, 295
Martin, Gregory, 631
Martin, William N., 338
Maruo, Soji, 216
Marving, Jens, 735
Marzano, Nicola, 342
Mason, J. Bohannon, 1038
Mason, M., 180
Masonis, J. L., 129
Masterson, Eric, 221
Matheson, John A., 204
Matsuda, Shuichi, 56
Matsumoto, Hideo, 760, 1071
Matsuno, Takeo, 134
Mauerhan, David R., 942, 963
Mayman, David, 541
Mazahery, Behrang, 889
McBurney, Helen, 775
McClung, Christian D., 605
McWilliams, T. G., 51
Meehan, John P., 834
Meldrum, Russell, 879
Meneghini, R. Michael, 299
Mesko, J. Wesley, 954
Messick, Peter, 2
Mihalich, Robert M., 1064
Minami, Akio, 134
Miner, Andrew L., 286
Miura, Hiromasa, 56
Mizu-uchi, Hideki, 56

Mokris, Jeffery G., 963
Moran, M., 442
Morandi, A., 377
Morgan, J., 45
Morgan-Jones, R. L., 41
Morimoto, Sayaka, 216
Morisue, Hikaru, 1071
Morlock, Michael, 471
Moroney, Paul, 765
Mulyadi, Dicky, 746
Muneta, Takeshi, 313
Munkner, Troels, 735
Muratoglu, Orhun K., 553
Murty, Aradhyula Narasimha, 844

Nagamine, Ryuji, 56
Nagao, Akihiko, 308
Naito, Masatoshi, 347
Nakagawa, Kenji, 946
Nakajima, Sadao, 100
Nakamura, Takashi, 367
Nakamura, Yukio, 100
Nau, Thomas, 968
Nercessian, Ohannes A., 430, 631
Newcombe, P. A., 180
Newman, John H., 199, 993
Nezry, N., 333
Ng, Tze-Pui, 435, 714, 799, 1023, 1067
Niethard, F. U., 528
Niki, Yasuo, 1071
Nishii, Takashi, 186
Nishikawa, Tetsuo, 524
Nomura, Takahiro, 100
Norris, Tom R., 75
Norton, Mark R., 562
Noss, R. S., 329
Novelli, Andrea, 342
Nunley, Ryan M., 278
Nussman, Donna S., 1038

Oakeshott, Roger, 1029
Oakley, Andrew P., 204
Obenaus, Christian, 271
O'Byrne, John, 765
Ochi, Mitsuo, 600
Ochi, Takahiro, 186
O'Connor, Daniel O., 553
Odum, Susan M., 1038
Ogura, Hiroyuki, 216
Ohashi, Hiroshi, 946
Ohmura, Tetsuji, 914
Okamoto, Renzo, 984
Okayama, Akira, 216
Oldmeadow, Leonie B., 775
Orishimo, Karl F., 154, 546
Otani, Toshiro, 1071
Otsuka, Hironori, 308
Ovesen, Ole, 735

Padgett, Douglas E., 250, 677, 907
Pagnano, Mark W., 211, 259
Pai, V. S., 208
Palmer, Shawn W., 533
Pandit, H. G., 852
Pao, Jwo-Luen, 105
Papadimitriou, Nicholas G., 169
Pappas, Charles, 643
Paprosky, Wayne G., 709
Parish, E. N., 41
Park, Jong-Hyuk, 626
Park, Myung-Sik, 626, 903
Parvizi, Javad, 259
Patel, J. V., 129
Patel, Mangala, 769
Paxton, Liz, 389
Pellicci, Paul M., 250
Peterson, M. G. E., 453
Petruccelli, Danielle, 741
Petty, William R., 792
Pfirrmann, Christian, 513
Pflegerl, E., 968
Piccaluga, F., 377
Pieringer, Herwig, 321
Pierson, Jeffery L., 840
Pietrani, M., 377
Pinilla, Roque, 570
Piriou, Philippe, 562
Plakseychuk, Anton Y., 123
Popovic, N., 396
Porter, Steve, 867
Power, Richard A., 387
Pratt, Jeffry A., 605

Ramappa, Arun, 113
Rand, James A., 592
Rea, Ruth E., 954
Reinartz, P., 528
Reish, Tim, 809
Reitman, Richard D., 161
Renowitzky, Glen, 494
Ressler, James, 329
Revell, P. A., 224
Rex, C., 993
Riegels-Nielsen, Per, 735
Ries, Michael D., 329, 494
Ritter, Merrill A., 668
Robertson, Valma J., 775
Rodrigo, Juan J., 834
Roffman, Moshe, 907
Roger, G. J., 41
Rogers, A., 619
Roidis, Nikolaos, 484
Romero, José, 513
Rorabeck, Cecil H., 129, 494, 541
Rosenberg, Aaron G., 677
Rowe, Sung Man, 746
Rowland, Charles M., 886
Ryd, Leif, 649

Sabas, M., 377
Sachs, Raymond A., 389
Saegusa, Yasuhiro, 524
Sagnet, Franck, 562
Saito, Tomoyuki, 612, 984
Sakahashi, Hisashi, 897
Salvati, Eduardo A., 110, 872
Sandhu, H., 338
Sarangi, P. P., 16
Sarris, Ioannis K., 169
Satcher, Robert L., 329
Sato, Eiichi, 897
Schils, Jean P., 784
Schinsky, Mark F., 430
Schmalzried, Thomas P., 605
Schreurs, B. W., 1056
Schwab, Joseph H., 211
Schwägerl, W., 271
Scott, Gareth, 769, 844
Scott, Richard D., 809
Scott, W. Norman, 687
Scuderi, Giles R., 687
Sculco, Thomas P., 250, 872
Seto, W. H., 714
Shapiro, Gary S., 250
Shepherd, Eric F., 605
Shikata, Jitsuhiko, 719
Shimizu, Kazuya, 367
Shin, Sung-Jin, 903
Sigfusson, Rickardur, 649
Silva, Mauricio, 605
Singh, R., 92
Siu, T. H., 174
Sledge, Clement B., 286
Smith, David M., 780
Smith, Evert, 638
Smith, Jennifer H., 389
Smith, Patricia L., 149
Sochart, D. H., 442
Solis, G., 41
Soloman, Daniel H., 69
Song, Eun Kyoo, 746
Sotereanos, Dean G., 169
Sperling, John W., 886
Stähelin, Thomas, 513
Stamos, Konstantinos, 484
Stevens, John, 583
Stewart, Todd D., 726
Stiehl, James B., 1029
Stonehouse, David M. II, 668
Streicher, Robert M., 726
Strömberg, Christen, 999
Stuchin, Steven A., 925
Su, Brian W., 631
Su, Edward, 23
Su, Edwin P., 110
Sudo, Akihiro, 658
Sugano, Nobuhiko, 186
Sugimoto, Kazuya, 914
Sugiura, Syo, 920
Sullivan Thomas A., 259
Summersell, P. C., 426
Sumner, Dale R., 677
Sun, Jui-Sheng, 352
Suzuki, Yoshihiro, 494
Sychterz, Christi J., 154
Syed, A. A., 92

Tägil, Magnus, 649
Taher, Radwan T., 387
Takahashi, Kazuhiro, 600
Takahashi, Makoto, 719
Takai, Shinro, 478, 931
Takakura, Yoshinori, 914
Takashina, Masaki, 186
Takeuchi, R., 612
Takikawa, Satoshi, 524, 784
Tanaka, Chiaki, 719
Tanaka, Nobuyuki, 897
Tang, Wai-Man, 714, 799, 1023
Tang, Y. K., 6
Tarbox, Tiffera R., 161
Tauro, B., 199
Taylor, A., 638
Taylor, A. H., 16
Taylor, Emma, 675
Teeny, Steven M., 954
Thomas, Bert J., 63
Thornhill, Thomas S., 113
Timillero, Lia, 342
Timlin, Marcus, 765
Tio, M. K., 6, 446
Tipper, Joanne L., 726
Toh, Satoshi, 308
Toksvig-Larsen, Sören, 649
Tomeno, B., 333
Tomita, Yasuharu, 914
Tonino, A. J., 401
Toomey, Deirdre, 765
Torfing, Trine, 735

Toyoda, Takashi, 760
Trousdale, Robert T., 96, 211, 259, 592
Tsang, W. L, 6
Tseng, Kuo-Fung, 227
Tsuang, Yang-Hwei, 352
Tsuji, Takashi, 760
Turnbull, A., 426

Uchida, Atsumasa, 658
Urabe, Ken, 56
Urbaniak, James R., 83, 411

Vail, Thomas P., 411
van Langelaan, E. J., 401
Vaz, M., 541
Vecsei, V., 968
Verdonschot, N., 1056
Vered, Ron, 907
Vigorita, Vincent J., 687
Vince, Kelly G., 813
Vinh, T. S., 333
Viola, Renato, 342
von Foerster, Götz, 471
von Knoch, Marius, 471
Vora, Anand, 889
Vossinakis, Ioannis C., 993

Wachtl, S. W., 587
Wakitani, Shigeyuki, 100
Wall, William W., 243
Wang, Ching-Jen, 383
Wang, Shyu-Jye, 804
Warashina, Hideki, 920
Watanabe, Yoshinobu, 931
Weaver, Frances, 693
Webster, Kate E., 751
Weeden, Steven H., 709
Weiland, Daniel E., 250
Weisbort, Moshe, 672
Weitz-Marshall, Amanda, 466
Whaley, Andrew L., 592
White, Christopher B., 886
Whitehouse, S., 199
Williamson, D. M., 972
Wilson, P. D., Jr., 453
Winemaker, M. J., 193
Winemaker, Mitchell J., 741
Wingstrand, Hans, 10
Winkler, H., 271
Wismer, David, 516
Wittwer, Joanne E., 751
Wixson, Richard, 693
Wong, Jimmy W. K., 1023
Wood, Karen, 840
Woolson, Steven T., 243
Worland, Richard L., 570
Wright, Elizabeth A., 286
Wright, John, 69
Wright, Thomas W., 792
Wright, Timothy M., 936
Wu, Shing-Sheng, 804
Wu, W. C., 174

Yagishita, Kazuyoshi, 313
Yajima, Hiroshi, 914
Yamaguchi, Motoi, 784
Yamaguchi, Tetsu, 347
Yamakado, Kotaro, 570
Yamamoto, K., 612
Yamauchi, Ken-ichi, 920
Yang, Keun-Ho, 903
Yang, Kuang-Ying, 801
Yasunaga, Yuji, 600
Yau, Wai-Pan, 714, 799, 1023
Yeo, Seng-Jin, 801
Yeon, Howard B., 113
Yingling, C. D., 329
Yoo, Jeong Joon, 511
Yoon, Taek Rim, 746
York, Sally C., 954
Yoshiaki, Kusaka, 931
Yoshida, T., 612
Yoshikawa, Hideki, 186
Yoshimine, Fumihiro, 1071
Yoshino, Nobuyuki, 478, 931
Yoshiya, Shinichi, 524, 784
Young, Anthony M., 654

Zalzal, Paul, 741
Zayontz, Shay, 809
Zuckerman, Joseph D., 925